



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0197; Directorate Identifier 2013-NE-09-AD]

RIN 2120-AA64

Airworthiness Directives; Pratt & Whitney Canada Corp. Turboprop Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Pratt & Whitney Canada Corp. (P&WC) PW118A, PW118B, PW119B, PW119C, PW123, PW123B, PW123C, PW123D, PW123E, PW123AF, PW124B, PW125B, PW126A, PW127, PW127E, PW127F, PW127G, and PW127M turboprop engines. This proposed AD was prompted by reports of fractures of the 1st stage power turbine (PT) blade. This proposed AD would require inspection of the 1st stage PT blades and the removal from service of those blades that fail the inspection or their replacement with blades eligible for installation. We are proposing this AD to prevent fracture of the 1st stage PT blade, possible engine fire, and damage to the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone: 800-268-8000; fax: 450-647-2888; Web site: www.pwc.ca. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England

Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0197; Directorate Identifier 2013-NE-09-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

Discussion

Transport Canada, which is the aviation authority for Canada, has issued Canada Airworthiness Directive CF-2013-02, dated January 22, 2013, a Mandatory Continuing

Airworthiness Information (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

There have been various reported incidents of P&WC PW100 series engine failures caused by the fracturing of the 1st Stage Power turbine (PT1) blade. Some of the above cases have resulted in engine fires. Further investigation by P&WC has traced the affected PT1 blade failures to undetected shrinkage porosity of unacceptable levels within the blade casting. Service experience indicates that the blades manufactured between 2005 and 2008 exhibit a higher propensity for unacceptable levels of shrinkage porosity.

This proposed AD would require inspection of the blades for shrinkage porosity and replacement with blades eligible for installation for those blades that fail the inspection.

You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

P&WC has issued Alert Service Bulletin No. PW100-72-21823, Revision 3, dated March 8, 2013. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA’s Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of Canada and is approved for operation in the United States. Pursuant to our bilateral agreement with Canada, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by Canada and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require inspection of the 1st stage PT blades and the removal from service of those blades that fail the inspection or their replacement with blades eligible for installation.

Costs of Compliance

We estimate that this proposed AD would affect about 540 engines installed on U.S. airplanes. We also estimate that it would take about 1.5 hours per engine to perform the inspection or replacement required by this proposed AD. The average labor rate is \$85 per hour. We estimate that 25% of the engines inspected would fail at least one 1st stage PT blade. If the 1st stage PT blade fails the inspection, a replacement blade would cost \$6,000. Based on these figures, we estimate the cost of the inspection or replacement to U.S. operators to be \$878,850.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Pratt & Whitney Canada Corp. (formerly Pratt & Whitney Canada Inc.): Docket No. FAA-2013-0197; Directorate Identifier 2013-NE-09-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected Airworthiness Directives (ADs)

None.

(c) Applicability

This AD applies to Pratt & Whitney Canada Corp. (P&WC) PW118A, PW118B, PW119B, PW119C, PW123, PW123B, PW123C, PW123D, PW123E, PW123AF, PW124B, PW125B, PW126A, PW127, PW127E, PW127F, PW127G, and PW127M turboprop engines with a 1st stage power turbine (PT) blade part number (P/N) 3120973-01, P/N 3120983-01, or P/N 3054053-01 installed that has a serial number listed in Table 1 of the Appendix of P&WC Service Bulletin No. PW100-72-21823, Revision 3, dated March 8, 2013.

(d) Reason

This AD was prompted by reports of fractures of the 1st stage PT blade. We are issuing this AD to prevent fracture of the 1st stage PT blade, possible engine fire, and damage to the airplane.

(e) Actions and Compliance

Unless already done, within 60 months after the effective date of this AD or when the affected PT blades are at module level exposure, whichever occurs first, do one of the following:

- (1) Replace the affected 1st stage PT blade with a blade eligible for installation; or
- (2) Perform a one-time X-ray inspection of the affected 1st stage PT blades, using paragraph 3.F.(2) of the Accomplishment Instructions of P&WC Service Bulletin No. PW100-72-21823, Revision 3, dated March 8, 2013.

(f) Installation Prohibition

After the effective date of this AD, do not install into any engine any 1st stage PT blade that has not passed the inspection required by paragraph (e)(2) of this AD.

(g) Definition

For the purpose of this AD, module level exposure is when the affected engine is inducted into the engine shop, the PT module is removed from the engine, and access is available to the necessary subassembly.

(h) Credit for Previous Actions

If before the effective date of this AD, you inspected the 1st stage PT blades using earlier versions of P&WC Service Bulletin No. PW100-72-21823, Revision 3, dated March 8, 2013, you met the inspection requirements in paragraph (e) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(j) Related Information

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) Refer to Transport Canada Airworthiness Directive CF-2013-02, dated January 22, 2013, and P&WC Service Bulletin No. PW100-72-21823, Revision 3, dated March 8, 2012, for related information.

(3) For service information identified in this AD, contact Pratt & Whitney Canada Corp., 1000 Marie-Victorin, Longueuil, Quebec, Canada, J4G 1A1; phone: 800-268-8000; fax: 450-647-2888; Web site: www.pwc.ca. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on March 29, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2013-07934 Filed 04/04/2013 at 8:45 am; Publication Date: 04/05/2013]